

Application No. 09/880,951
Amendment Dated March 19, 2004
In Reply to USPTO Office Action Dated December 19, 2003
Customer No. 28289
Confirmation No. 6006
Attorney Docket No. 4194-030269

REMARKS

The disclosure is objected to and the claim stands rejected pursuant to 37 C.F.R. § 1.163(a) and under 35 U.S.C. § 112, first and second paragraphs. Applicant believes that the amendments made to the specification specifically address the Examiner's objections detailed in Paragraphs A-H on pages 4-5 of the Office Action. Withdrawal of the objection and reconsideration of the rejection under 35 U.S.C. § 112, first and second paragraphs, is respectfully requested.

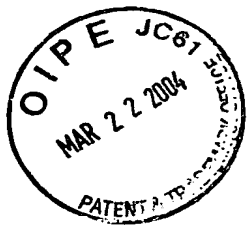
CONCLUSION

In light of the foregoing, allowance of the claim is respectfully requested.

Respectfully submitted,

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PRUNUS PLANT NAMED 'VSV-1'

BOTANICAL CLASSIFICATION

Prunus incana x *Prunus tomentosa*

VARIETAL DENOMINATION

‘VSV-1’

CROSS-REFERENCES TO RELATED APPLICATIONS

The application for the new invention Prunus Plant Named 'VSV-1' ~~will be is~~ co-pending with three other plant patent applications entitled Prunus Plant Named 'VVA-1', Serial No. 09/880,952, Prunus Plant Named 'VSL-2', Serial No. 09/880,953, and Prunus Plant Named 'LC-52', Serial No. 09/880,950, having the same filing date and inventor.

BACKGROUND OF THE INVENTION

The present invention relates to the new and distinct cultivar known botanically as a hybrid of *Prunus* and referred to hereinafter as ‘VSV-1’. The new invention was bred by the inventor at the Breeding Station in Krymsk, Russia.

The breeding program at the Breeding Station was established in 1966 and funded by the government of the former Soviet Union for the purpose of producing new and improved *Prunus* cultivars that propagate well, have one central stem, few branches, and serve well as rootstock that is compatible with peach and plum.

In 1966 the inventor crossed the female parent *Prunus ~~incanus~~ incana* (not patented) with the male parent *Prunus tomentosa* (not patented), producing an induced hybridization in a cultivated area of Krymsk, Russia. The resulting seedlings were observed and evaluated for ten years. In 1977 the inventor selected ‘VSV-1’ from these seedlings. The new cultivar originated as a single plant and is the result of a hybrid cross between the *Prunus incana* (not patented) and *Prunus tomentosa* (not patented).

The closest comparison plants are the parent plants. The characteristics that distinguish the new cultivar from *Prunus incana* are[[,]] increased vigor, larger fruit, larger leaves and ease of propagation. The characteristics that distinguish the new cultivar from *Prunus tomentosa* are[[,]] narrow leaves, small fruit, presence of stipules and strength of propagation. The distinguishing characteristics that make this

cultivar unique from all other existing varieties of *Prunus* known to the inventor are
[[,]]vigor, the ability to propagate well by stool beds, resistance to drought, cold and
heat and the ability to serve well as rootstock that is compatible with peach and plum.

‘VSV-1’ was first asexually propagated in 1977 by the inventor at the
5 Breeding Station in Krymsk, Russia. The method used was softwood cuttings in
vitro. The distinguishing traits have been determined stable and are reproduced true
to type in successive generations.

SUMMARY OF THE INVENTION

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The following traits have been repeatedly observed and represent the
distinguishing characteristics of the new cultivar. These traits in combination
distinguish ‘VSV-1’ from all other existing cultivars of *Prunus* hybrid known to the
inventor. ‘VSV-1’ has not been tested under all possible conditions and phenotypic
15 differences may be observed with variations in environmental, climatic, and cultural
conditions, however, without any variance in genotype.

1. *Prunus* ‘VSV-1’ propagates well by stool beds in addition to other
methods.
2. *Prunus* ‘VSV-1’ serves well as rootstock that is compatible with peach and
20 plum.
3. *Prunus* ‘VSV-1’ is resistant to drought, cold and heat.
4. *Prunus* ‘VSV-1’ is strong and vigorous.
5. *Prunus* ‘VSV-1’ is hardy to minus 15° Centigrade.

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BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed botanical description of the new rootstock variety
Prunus hybrid ‘VSV-1’. Observations, measurements, values, and comparisons were
collected in McMinnville, Oregon from the inventor. [[,]] The new variety was two
30 (2) years old when described and was cultivated in a temperature variable
environment. The foliage, flower and fruit exhibited by this cultivar are of no
economic or commercial value, therefore comparisons and botanical descriptions of
the foliage, fruit and flower are made for identification purposes only. Mature
specimens, as well as bareroot specimens, were unavailable for photographing [[,]] at

the time this document was written. The color determinations are in accordance with the RHS Colour Chart of the Royal Horticultural Society, London, England except where general color terms of ordinary dictionary significance are used.

Botanical classification: ~~*Prunus*~~ 'VSV-1' *Prunus incana* x *Prunus tomentosa*.

- 5 Parentage: *Prunus* 'VSV-1' is an induced hybrid that resulted from crossing the following plants.

Female parent: *Prunus incana* (not patented).

Male parent: *Prunus tomentosa* (not patented).

Type: Deciduous tree.

- 10 Use: 'VSV-1' serves as rootstock that is compatible with peach and plum.

Soil: Light, sandy soil required.

Light: Full sunlight.

Fruit bearing: ~~Moderately fruit bearing (fruit in third leaf after planting)~~ No fruit observed on plants up to 3 years of age.

- 15 Crop time: Requires 3 years from rooted cutting to achieve finished product size ready to ship bareroot.

Dimensions at crop time: 2.5 m. in height and 2 m. in width.

Vigor: 50-60 % of standard. *Prunus persica* is used as the standard (peach seedling).

Habit: Dwarf and generally upright with some arching branches.

- 20 Hardiness: USDA Zone 4A.

Cold tolerance: Excellent.

Heat tolerance: Excellent.

Propagation: Can be propagated by hardwood, softwood cuttings, meristem cuttings in vitro, and stool beds (layering).

- 25 Rooting habit: Fine and fibrous initially. After 1 year roots become fleshy and thick.

Time to initiate roots: 5-6 months to develop roots at 22-25° Centigrade.

Disease and insect resistance: Normal resistance to disease and insects.

Trunk:

- 30 Trunk dimensions: At 3 years the trunk is 4 cm. in diameter and 20 cm. in height

(from soil level to first branch is 20 cm.).

Trunk bark surface: Glabrous surface.

Trunk bark color: 201A.

Lenticels: Present in small amount.

Lenticel shape: Linear to lens shaped.

Lenticel color: 198B.

Lenticel dimensions: Up to 4 mm. in length and 1 mm. in width.

Branches:

5 Branch surface: Pubescence on young emerging branches. Absent on other branches.

Branch color: 201B.

Internode length: 5-7 cm. between nodes.

Branching angle at emergence: 60-65° and straight.

10 Branching habit: Medium branching.

Pubescence: Present on young branches.

Pubescence color: 201C.

Lenticels (quantity): Present in small amounts on older branches and larger amount on young branches.

15 Lenticel shape: Linear to lens shape.

Lenticel color: 198B.

Lenticel dimensions: 2-3 mm. in length and 1 mm. in width.

Lenticel number: Approximately 9 per inch on rootstocks over 1 year old.

Leaves:

20 Arrangement: Alternate and whorled.

Leaf length: 4.5 cm. in length.

Leaf width: 2.5-3 cm. in width.

Leaf shape: Oblanceolate.

Leaf apex: Acuminate.

25 Leaf base: Cuneate.

Leaf color (adaxial surface): 132B.

Leaf color (abaxial surface): 132D.

Leaf surface (adaxial): Pubescent.

Leaf surface (abaxial): Pubescent.

30 Leaf margins: Crenulate.

Leaf division: Simple.

Petiole dimensions: 4-5 mm. in length and 1 mm. in diameter.

Petiole color: 131C.

Petiole surface: Pubescent.

- Stipules: Present.
- Stipule dimensions: 2-2.5 mm. in length and 1 mm. in width.
- Stipule color: 132D.
- Pubescence: Present on adaxial and abaxial surfaces.
- 5 Pubescence color: 201D.
- Venation pattern: Pinnate.
- Vein color (adaxial and abaxial surfaces): 131A.
- Leaf texture: Wrinkled, and firm to leathery texture.
- Leaf strength: Moderate strength.
- 10 Leaf appearance: Velvety on abaxial surface and dull on adaxial surface.
- Fruit:
- Maturity: 70 to 75 days to mature.
- Dates of picking: Not a fruit crop. Fruit has no commercial value.
- Production: Moderately fruit bearing.
- 15 Fruit form: Globose.
- Stem dimensions: 4-5 mm. in length and 1 mm. in width.
- Stem color: 143B.
- Skin color: 45B.
- Skin surface: Puberulent.
- 20 Lenticels: Absent.
- Flesh color: 61D.
- Flesh texture: Juicy.
- Flavor: Sour cherry.
- Aroma: None.
- 25 Seed number: One drupe.
- Seed shape: Round.
- Seed color: 164A.
- Seed dimensions: 5-6 mm. in diameter and 5-6 mm. in length.
- Storage: None has been determined.
- 30 Use: None has been determined.
- Flower:
- Arrangement: Solitary.
- Flower shape: Rotate.
- Bud dimensions: 3 mm. in width and 3 mm. in length.

- Bud color: 56D.
- Time of bloom: Flowers bloom at 1 year and last for 7-8 days.
- Flower diameter: 2.5 cm. in diameter.
- Flower depth (throat): 3 mm. in depth.
- 5 Bloom quantity: 50-60 flowers per branch.
- Number of petals: Five petals in number.
- Fused or unfused: Petals are unfused.
- Petal shape: Obovate.
- Petal margin: Entire and wavy.
- 10 Flower color fully opened (upper and lower surfaces): 155C.
- Dimensions of peduncle: 3-4 mm. in length and up to 1 mm. in width.
- Color of peduncle: 143C.
- Surface of peduncle: Pubescent.
- Calyx dimensions: 3 mm. in length and 2.5 mm. in width.
- 15 Calyx surface: Minimal pubescence.
- Calyx color: 146B.
- Number of sepals: Five sepals in number.
- Natural flowering season: Spring.
- Persistent or self-cleaning: Self-cleaning.
- 20 Fragrance: None.
- Reproductive organs:
- Stamen number: Polyandrous. 12-15 stamens and unequal lengths.
- Stamen color: 155C.
- Anther: Round with stamen attached at center of dorsal surface.
- 25 Anther color: 20B.
- Anther dimensions: 1 mm. in length and 1 mm. in width.
- Amount of pollen: Large amount.
- Color of pollen: 20B.
- Pistil: One in number.
- 30 Pistil color: 1C.
- Pistil dimensions: 4 mm. in length and 1 mm. in width.
- Style color: 9A.
- Style dimensions: 1mm. in length and .50 mm. in width.
- Ovary dimensions: 2 mm. in length and 2 mm. in width.

Ovary color: 155C.

Ovary position: Superior.

I CLAIM:

A new and distinct ~~rootstock~~ variety of *Prunus* plant named 'VSV-1'
as ~~described~~ herein described and illustrated.

ABSTRACT OF THE DISCLOSURE

A new and distinct rootstock variety of *Prunus* named 'VSV-1' that is characterized by[[,]] vigor and strength, the ability to serve well as rootstock that is
5 compatible with peach and plum, resistance to drought, cold and heat and the ability to propagate well by ~~steelbeds~~ stool beds in addition to other methods. In combination these traits set the new cultivar apart from all other existing varieties of *Prunus* rootstock.